

Figure 2

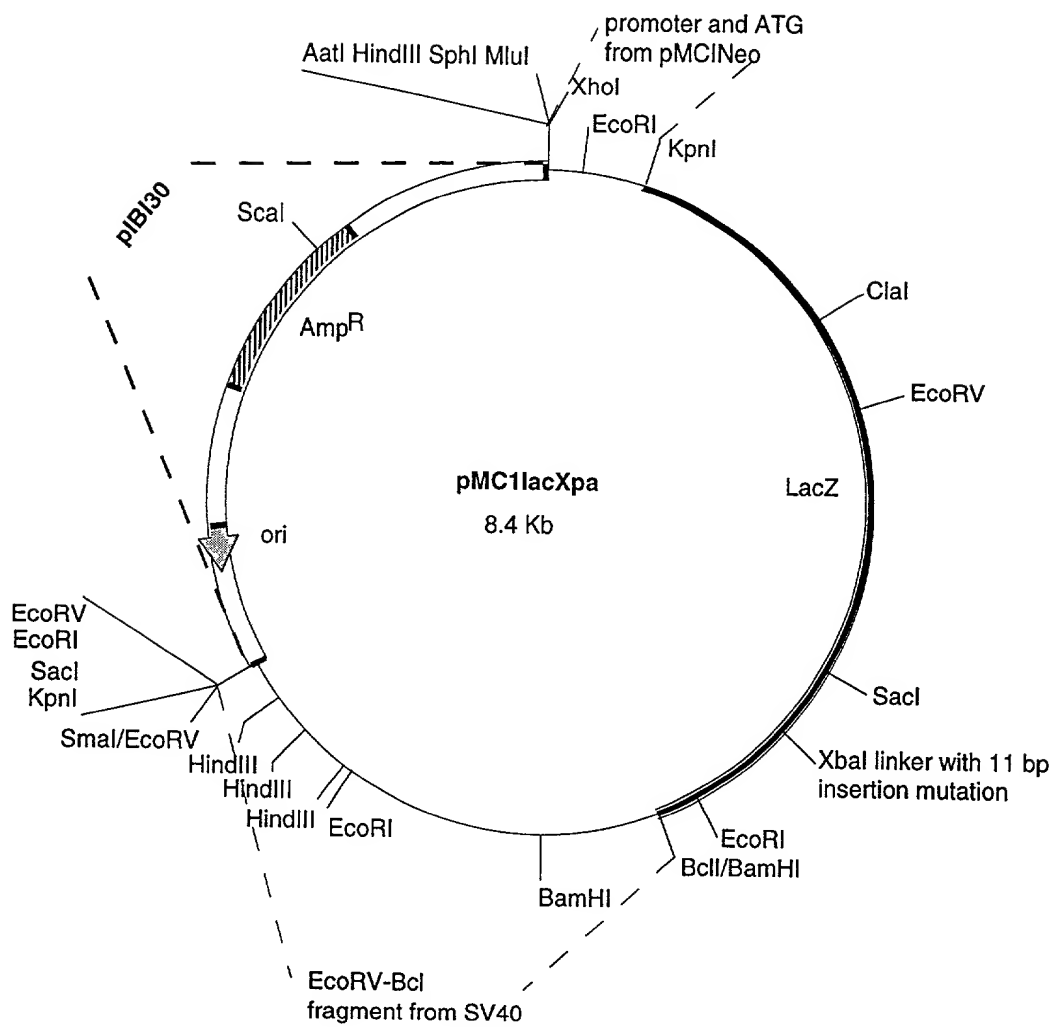


FIGURE 3

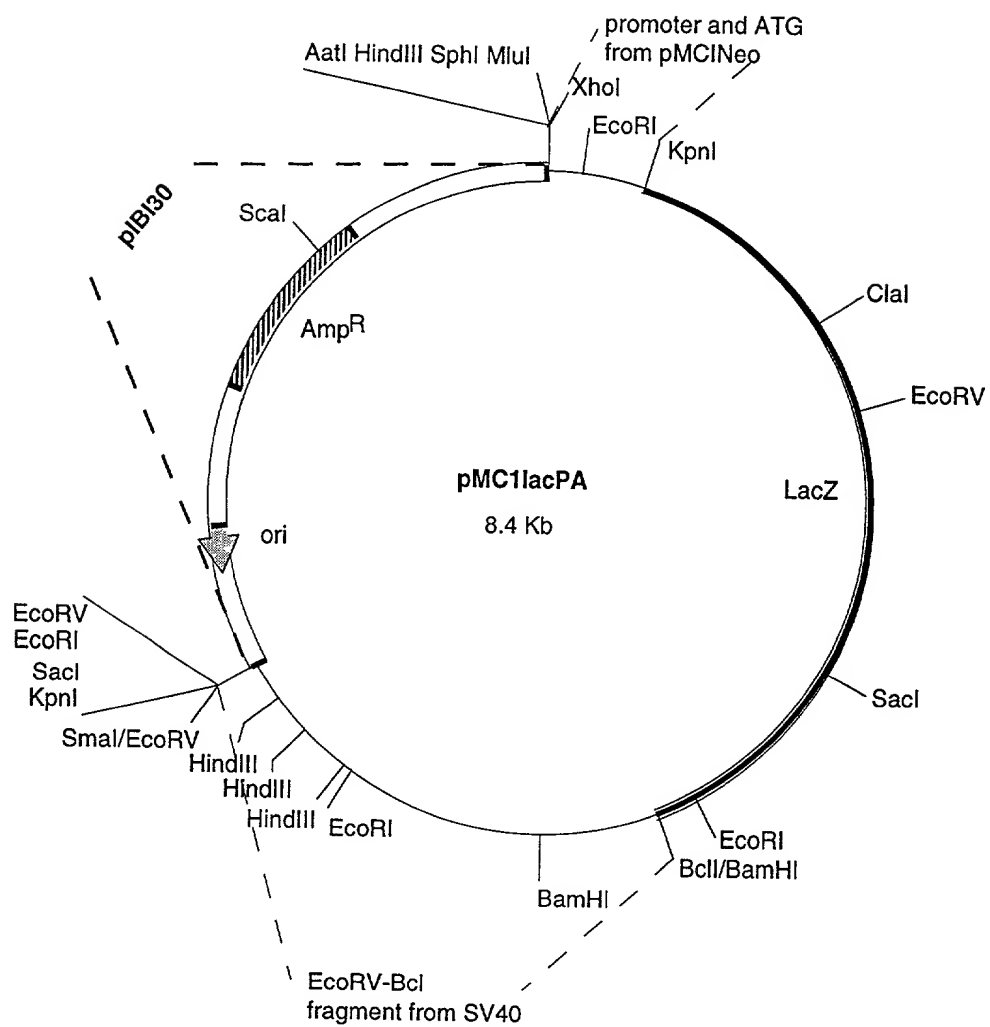
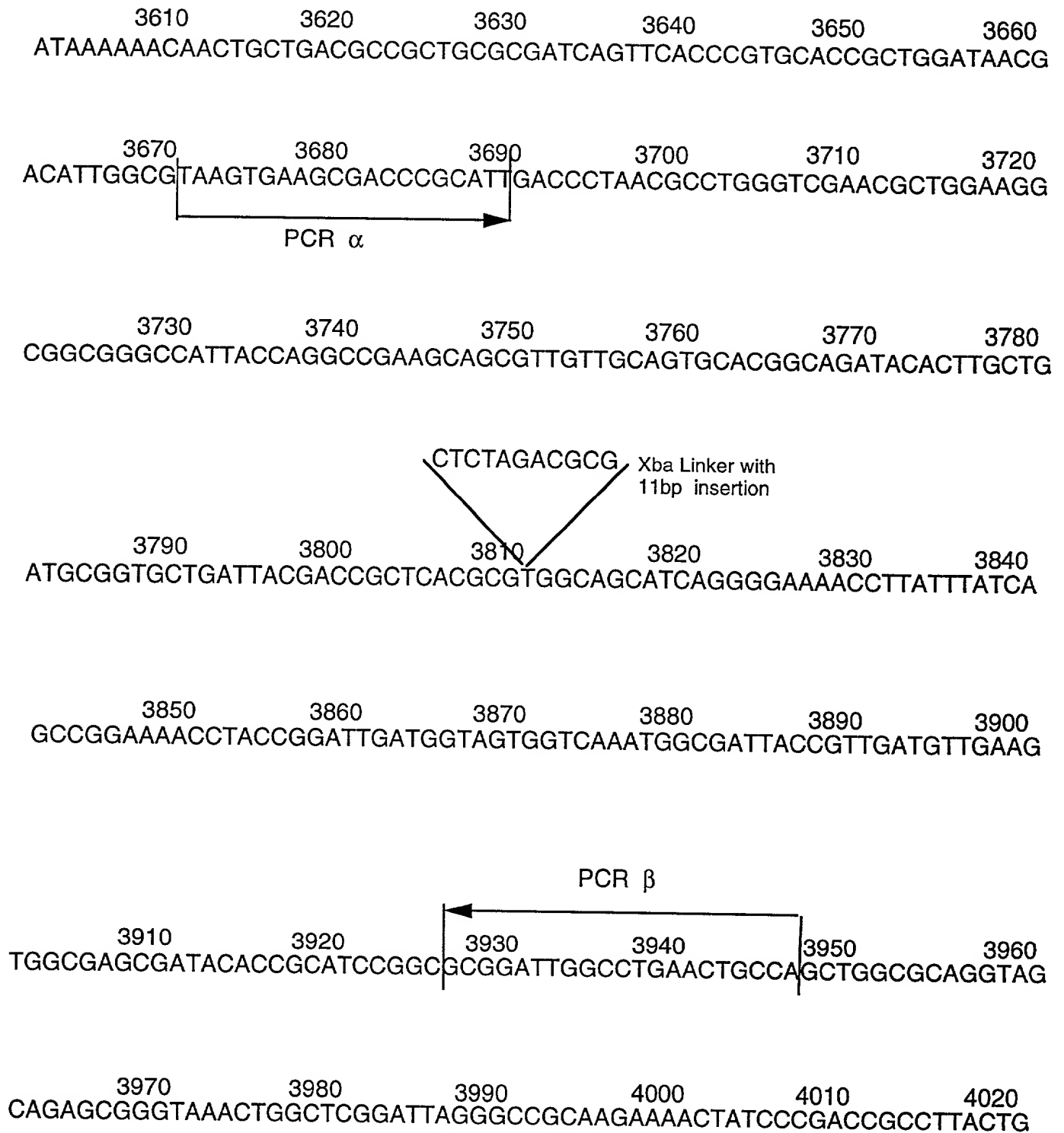


FIGURE 4

Figure 5

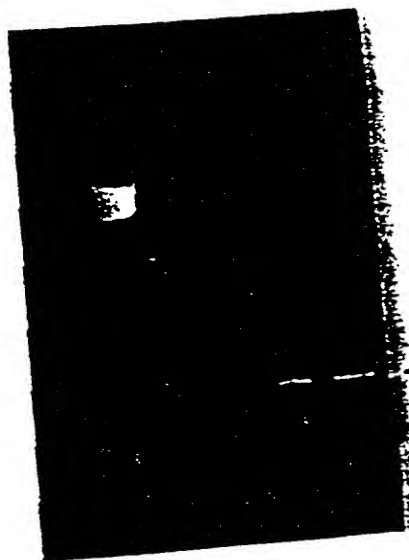


**TEST FOR ALTERATION OF AN INSERTION MUTATION IN THE *lacZ*
(β -GALACTOSIDASE) GENE OF EUKARYOTIC EXPRESSION VECTOR**

Experimental Sample	Injected Plasmid, 276-mer DNA and RecA Protein		Number of Injected Surviving Cells	Number of Surviving Cells Scoring Blue	Surviving Cells Scoring Blue (%)
1	pSV- β -gal	-276-mer - RecA	168	21	12.5
2	pMC1lacpa	- 276-mer - RecA	98	9	9.2
3	pMC1lacXpa	- 276-mer - RecA	173	0	0
4	pMC1lacXpa	+ 276-mer - RecA	103	0	0
5	pMC1lacXpa	+ 276-mer + RecA	168	6	3.6

Figure 6

M 1 2 3



687 bp

Figure 7A

Control (Σ CF)
T Σ CF Microinjected
T Σ CF P-L

Figure 7B



687 bp

1 2 3 4 5 6

300 ➡

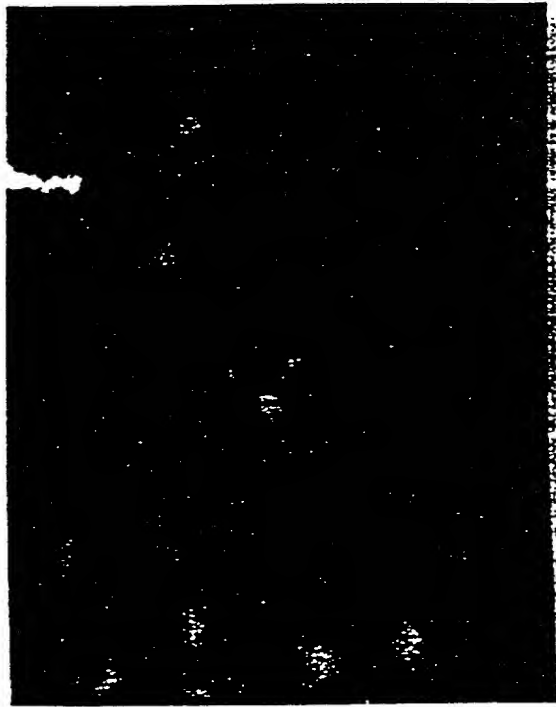


Figure
8A

1 2 3 4 5

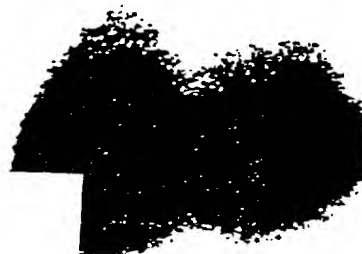


Figure
8B

1 2 3

299 ➤

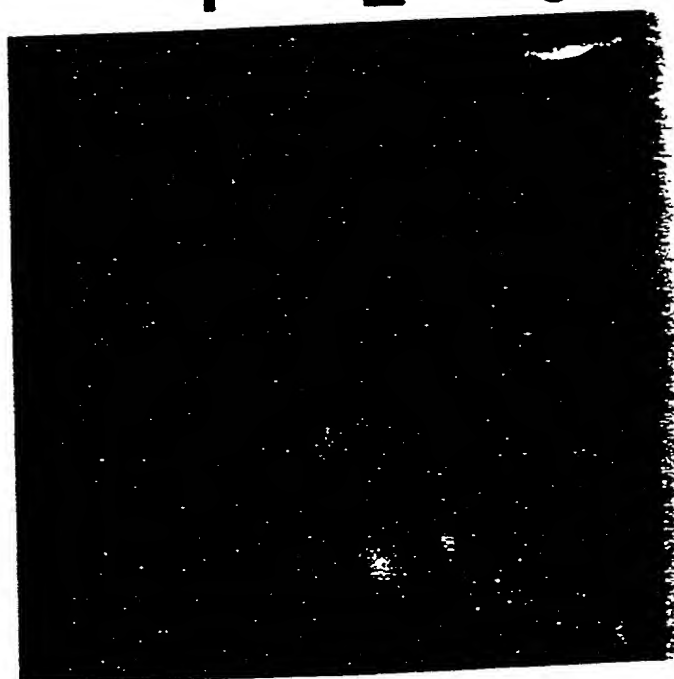


Figure
9

Scheme for recombination assay

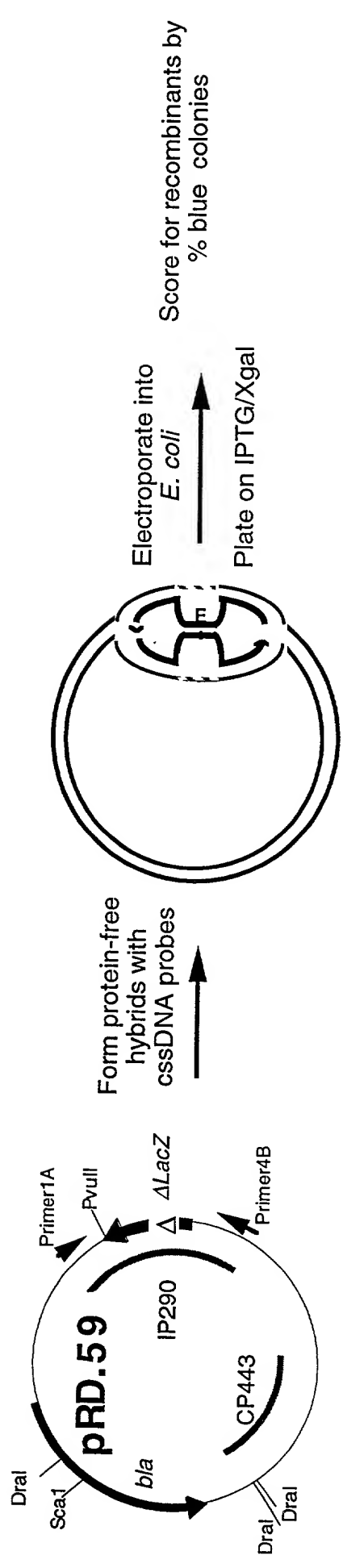


Figure 10

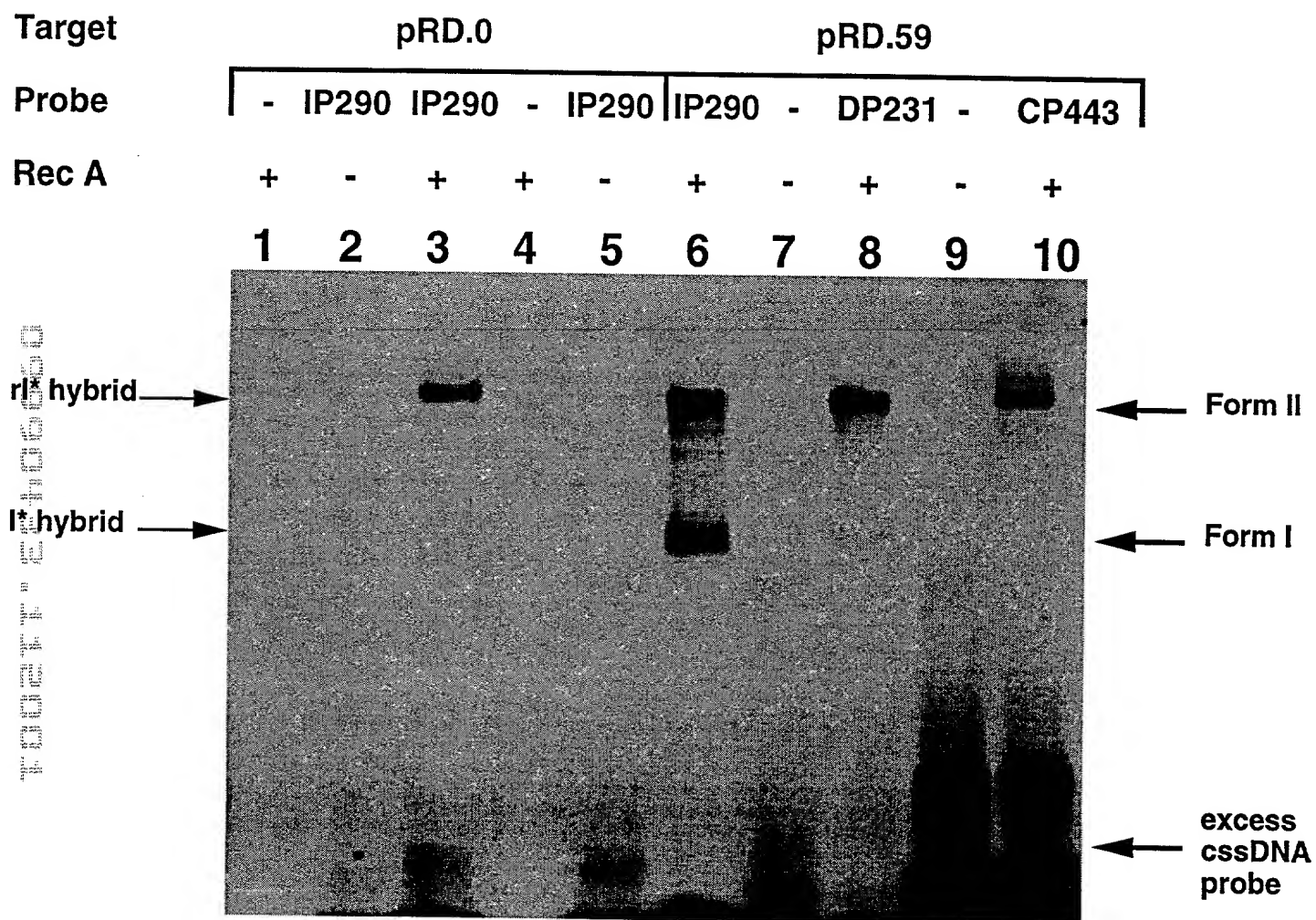


FIGURE 11

cssDNA Probe:Target Hybrids Enhance Homologous Recombination

Target Probe	RecA coating	Host	%Recombinant / total colonies
pRD.59 -	+	RecA+	0
pRD.59 -	+	RecA -	0
pRD.59 IP290	-	RecA+	0
IP290	-	RecA -	0
pRD.59 IP290	+	RecA+	3
IP290	+	RecA -	0
pRD.59 DP290	-	RecA+	0
DP290	-	RecA -	0
pRD.59 DP290	+	RecA+	0
DP290	+	RecA -	0
pRD.59 CP443	-	RecA+	0
CP443	-	RecA -	0
pRD.59 CP443	+	RecA+	0
CP443	+	RecA -	0

Figure 12

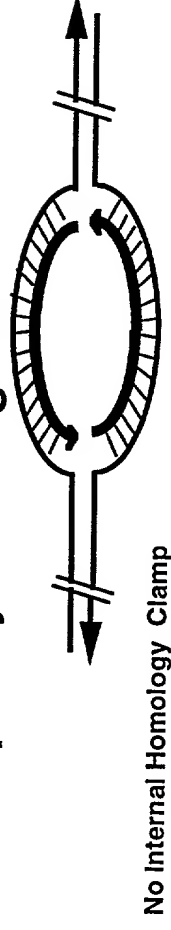
Four-strand hybrids

All DNA probe and target strands are paired

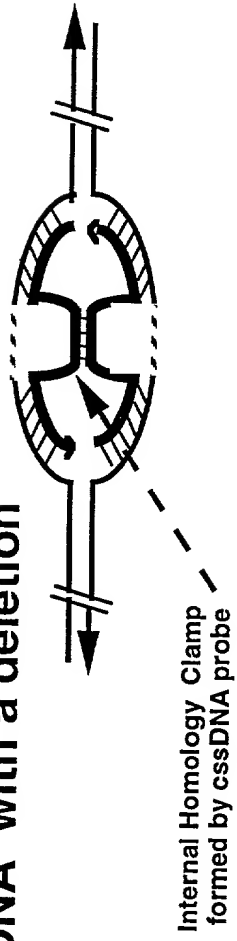
Three-strand hybrids

Certain regions of DNA probe or target strands are unpaired

A. Target DNA completely homologous



B. Target DNA with a deletion



C. Target DNA with an insertion

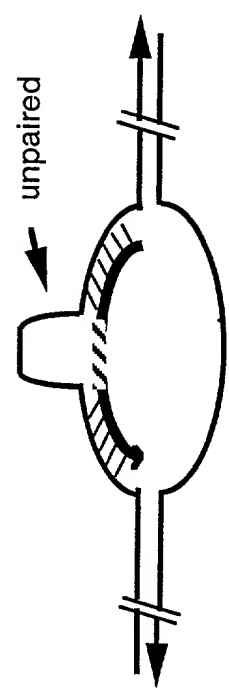
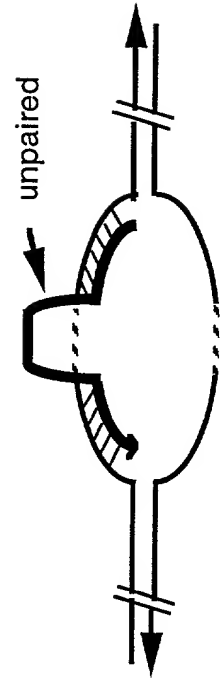
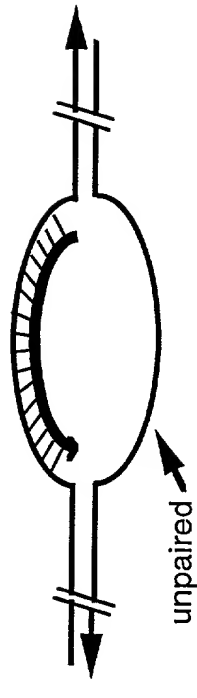
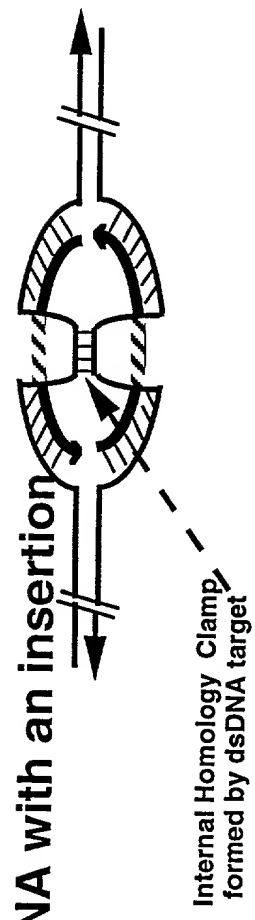


Figure 13

Figure 14A

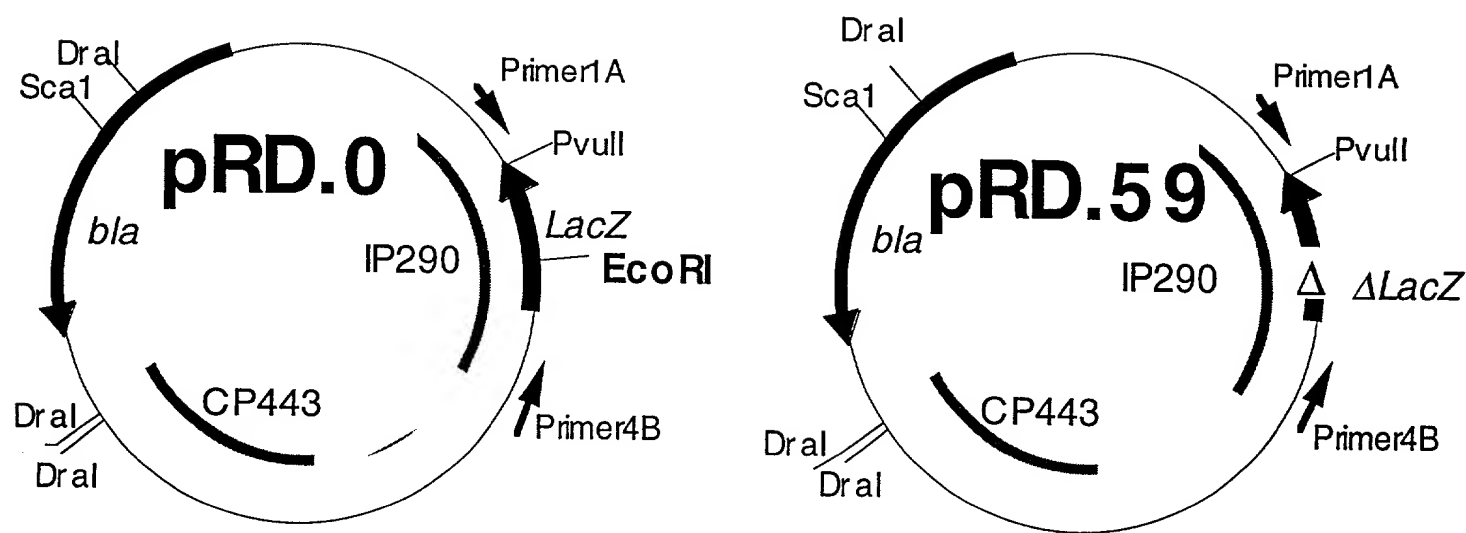
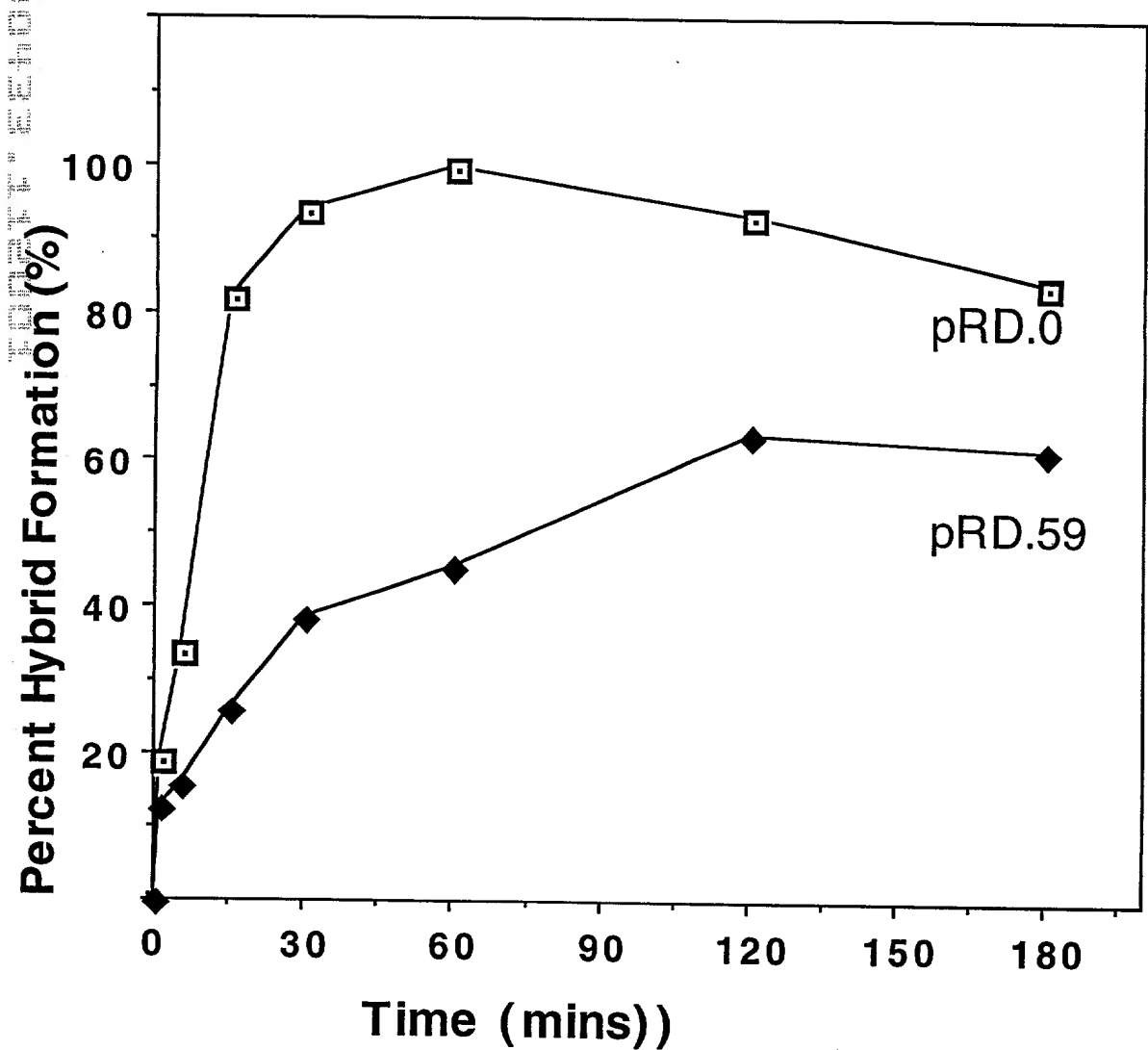


Figure 14B



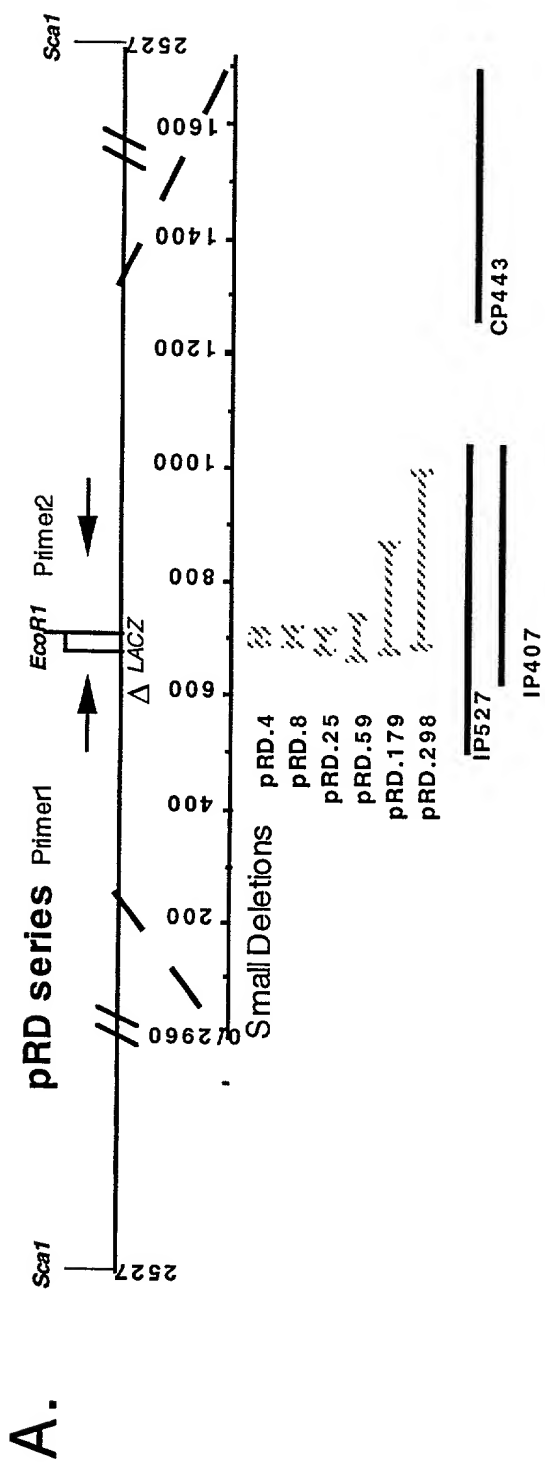


Figure 15A

Figure 15B

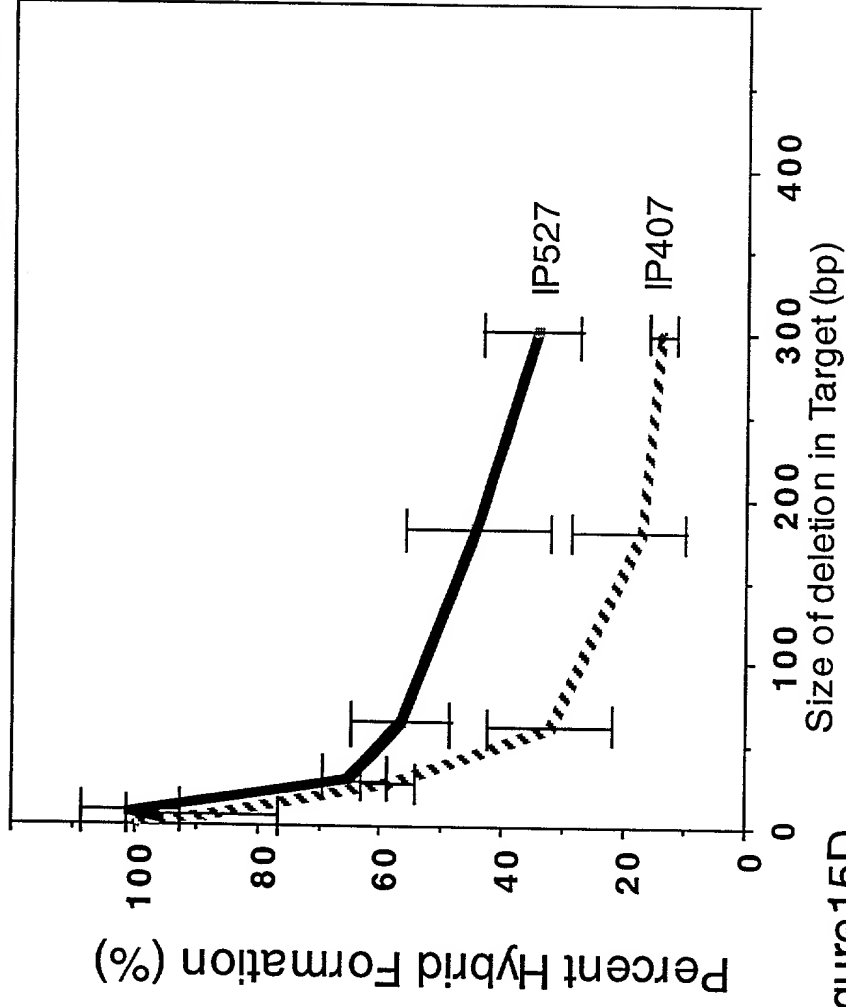


Figure 15C

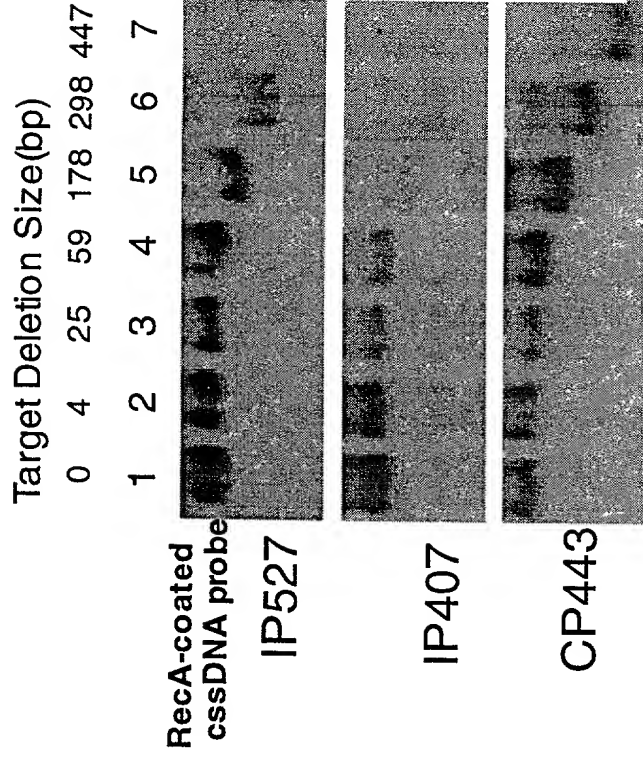
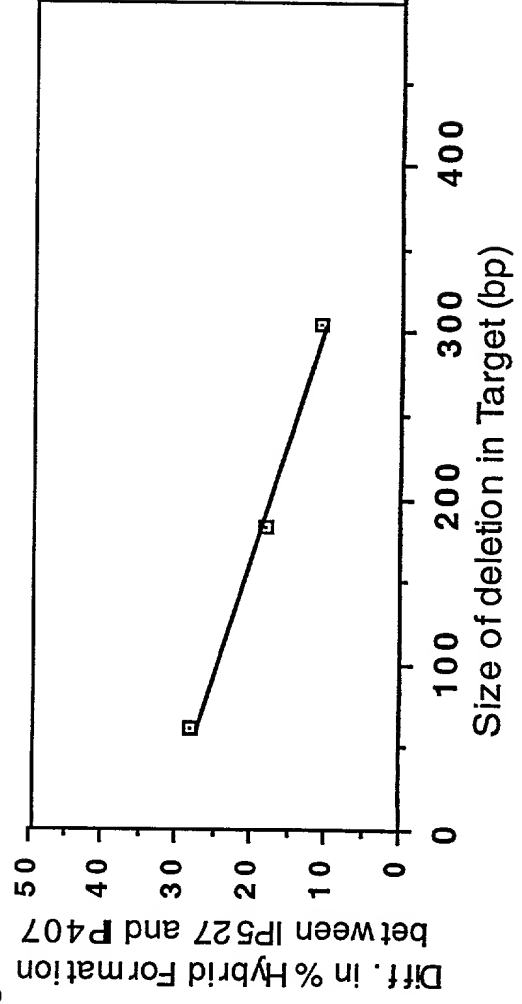


Figure 15D



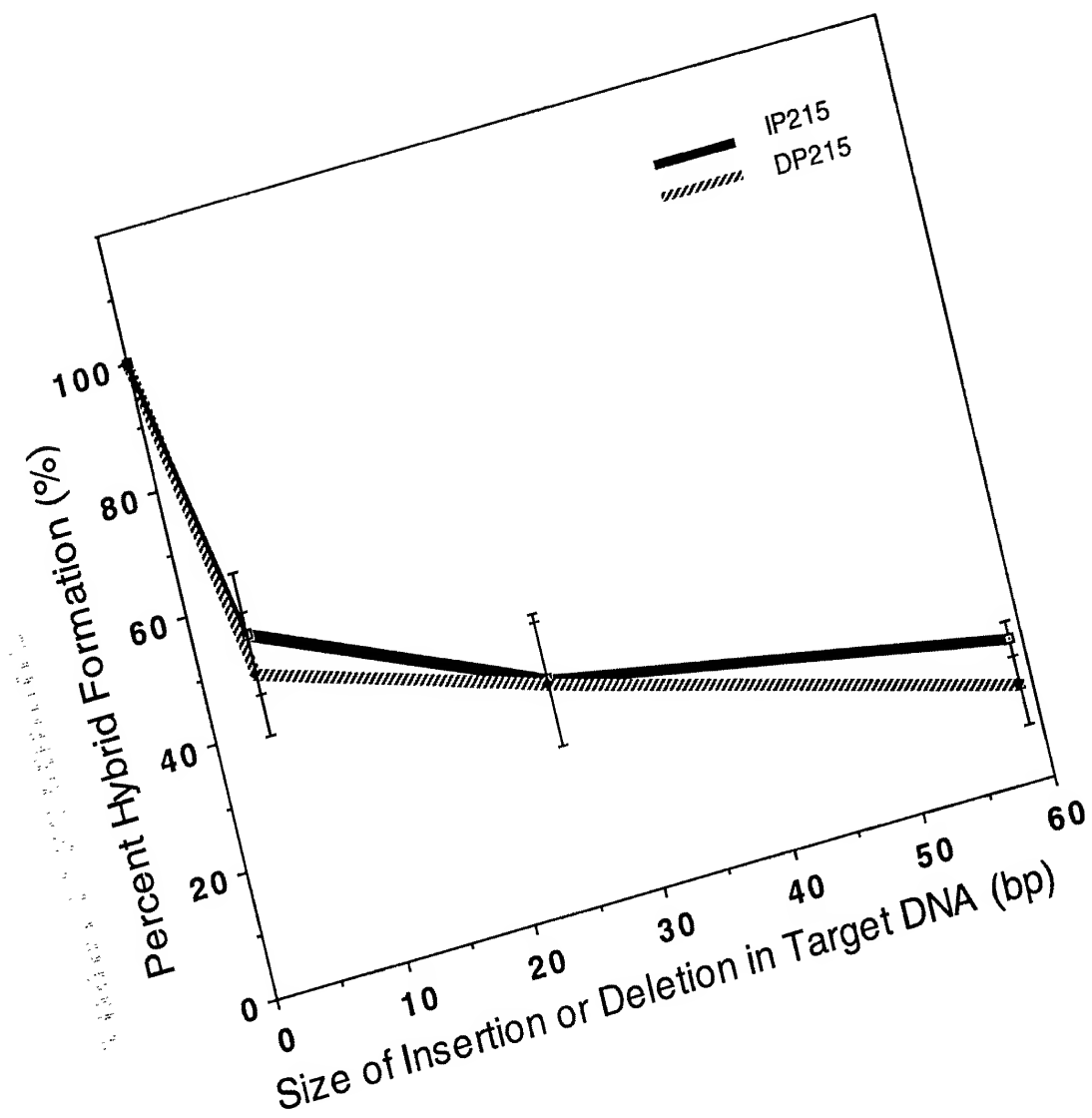


Figure 16

Probe

P1246

CP443

Target

pRD.0

pRD.448

pRD.453

pRD.559

pRD.967

pRD.0

pRD.448

pRD.453

pRD.559

pRD.967

FormIII Marker

pRD.0

pRD.448/453

pRD.559

pRD.967

Excess
probe

Excess
probe

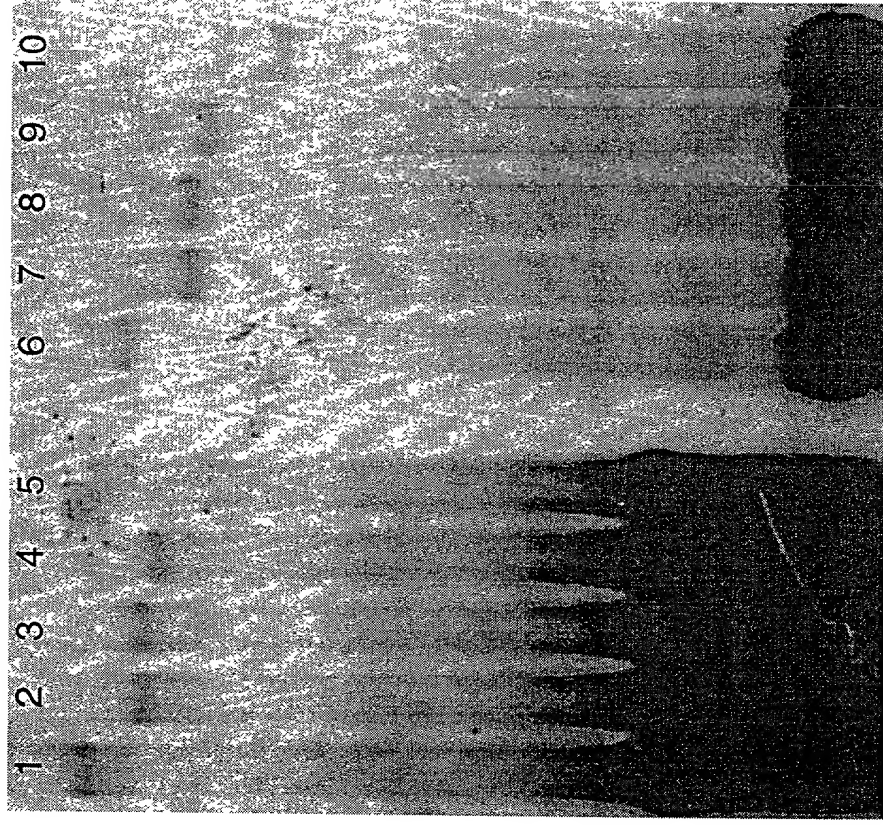


Figure 17A

Figure 17B

TARGET DNA	AMT. HOMOL. (bp)	RELATIVE HYBRIDIZATION
pRD.0	1246	1.0
pRD.448	798	0.8
pRD.453	793	0.8
pRD.559	687	0.8
pRD.967	279	0.3

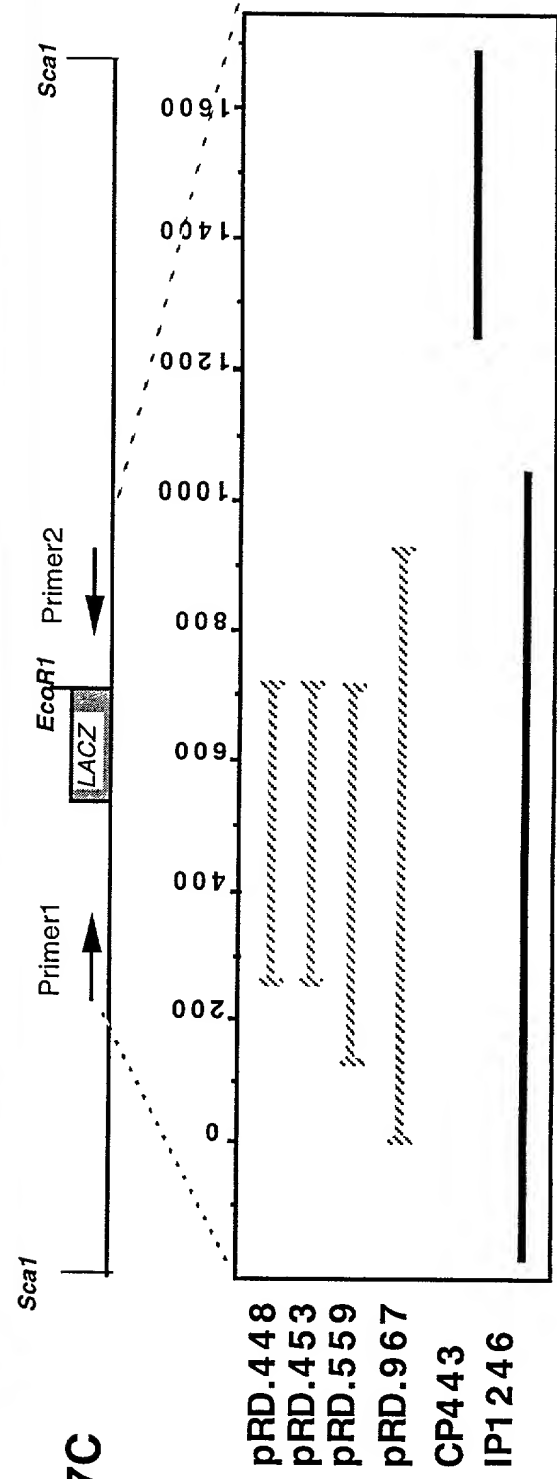


Figure 17C

Figure 18

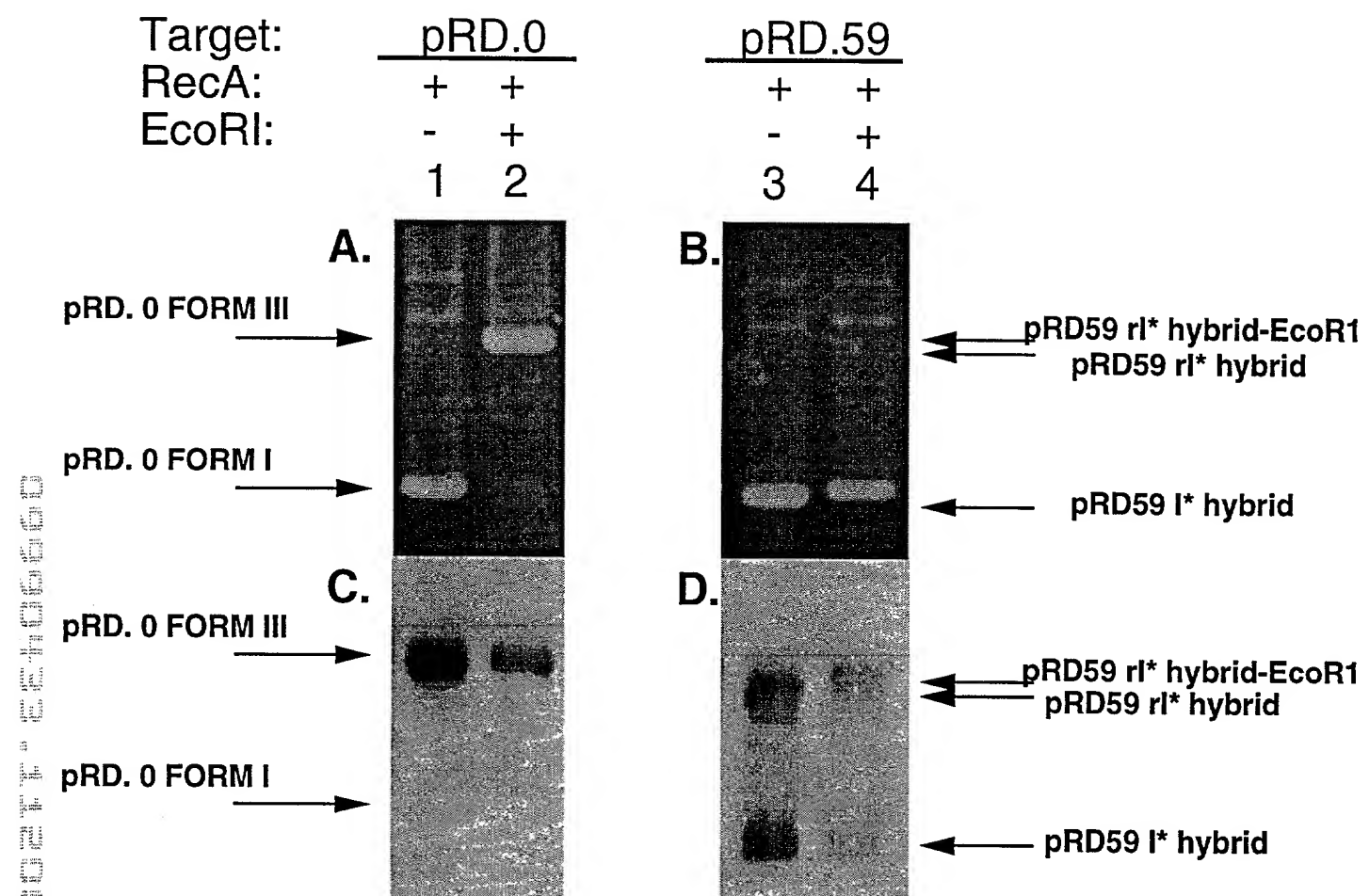
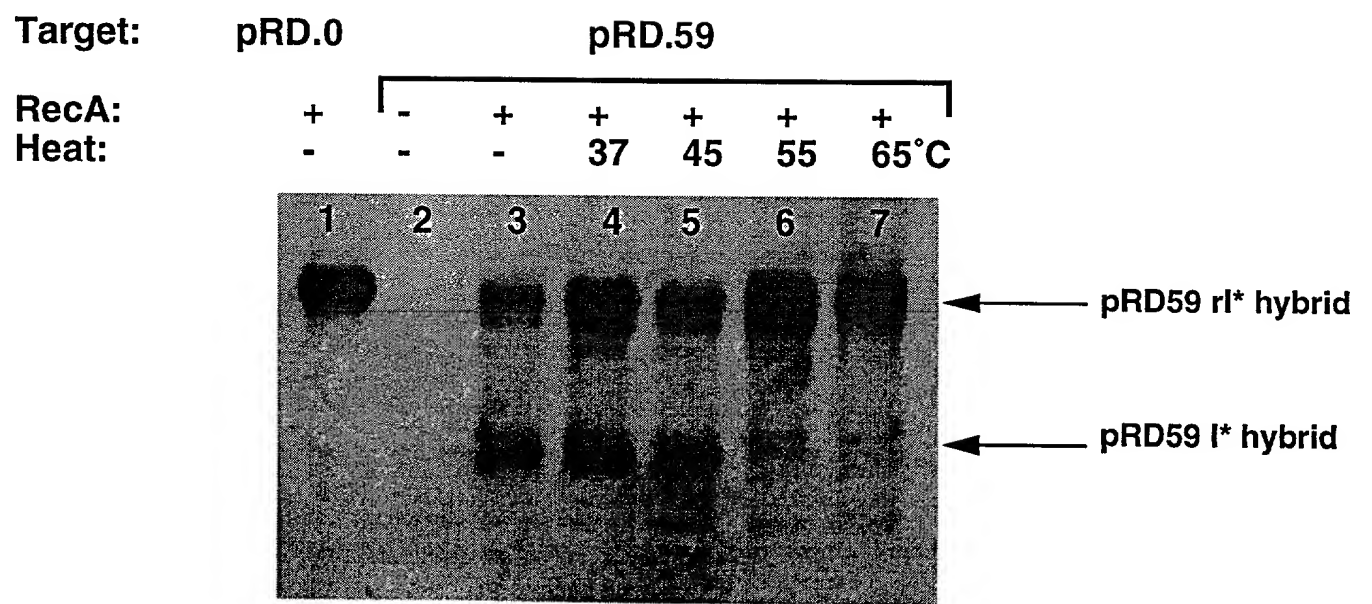
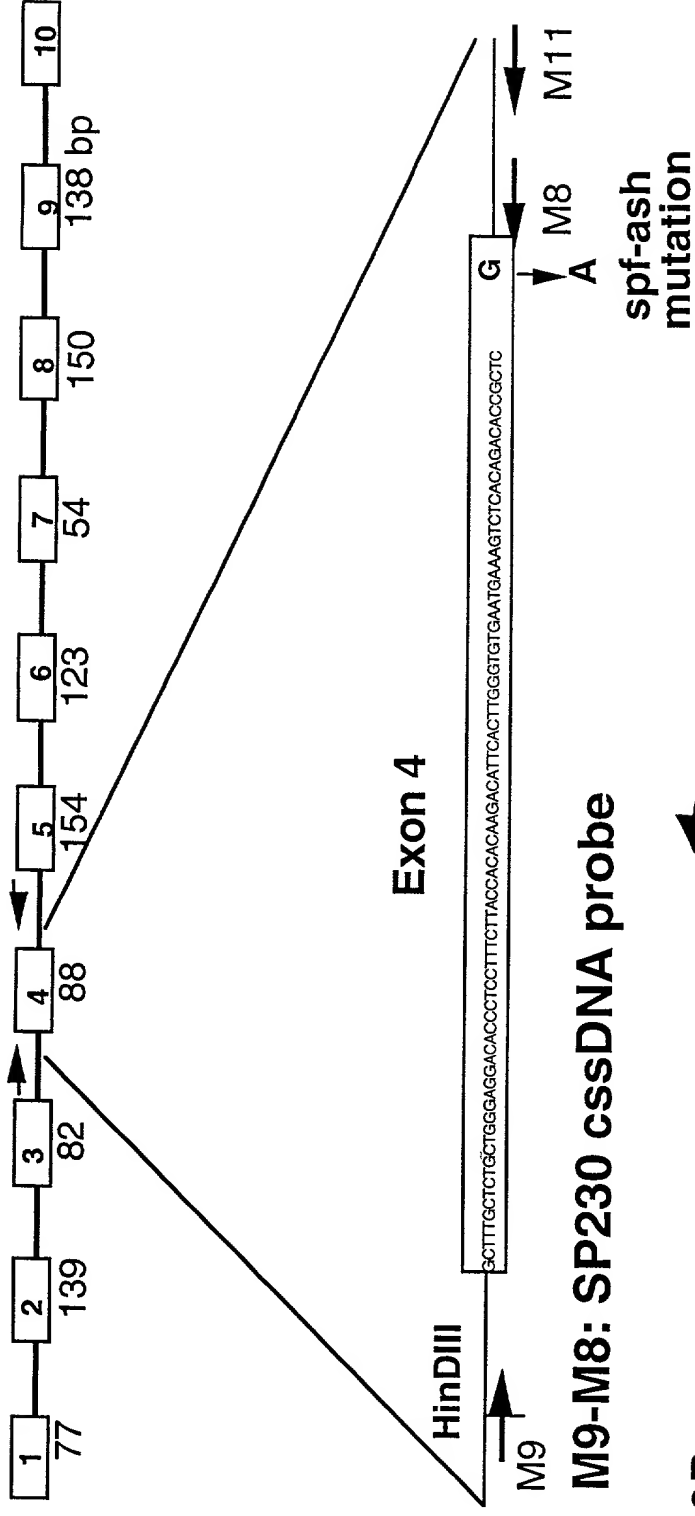


Figure 19



Mouse Ornithine Transcarbamylase Gene

Figure 20A



M9-M8: SP230 cssDNA probe

Figure 20B

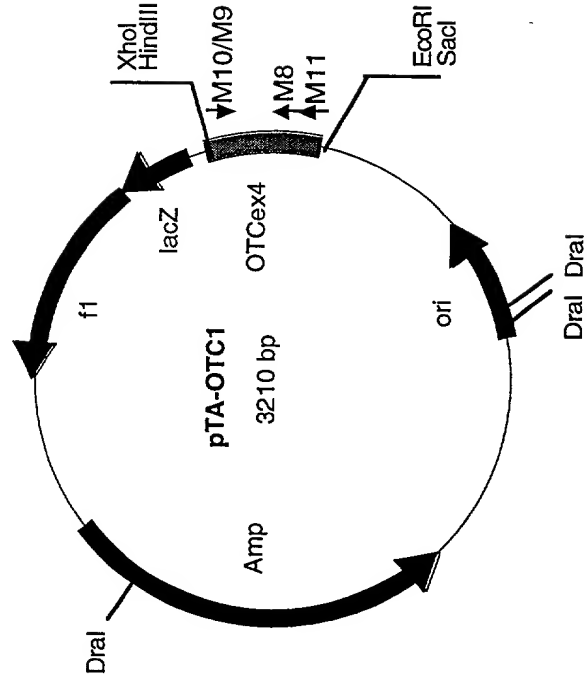
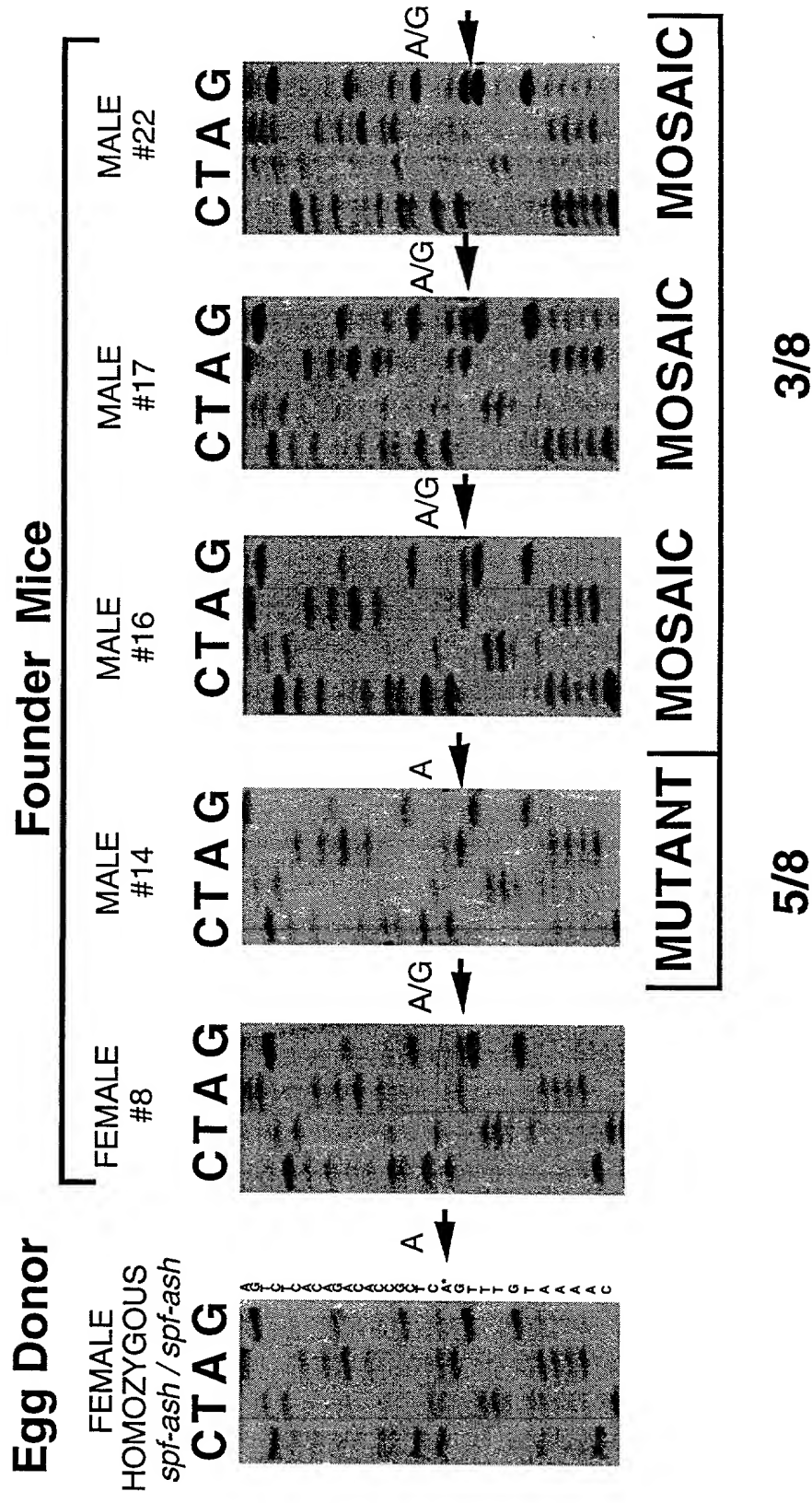


Figure 21

OTC exon4 DNA sequence determination



Germline Transmission of EHR Corrected OTC⁺ Allele

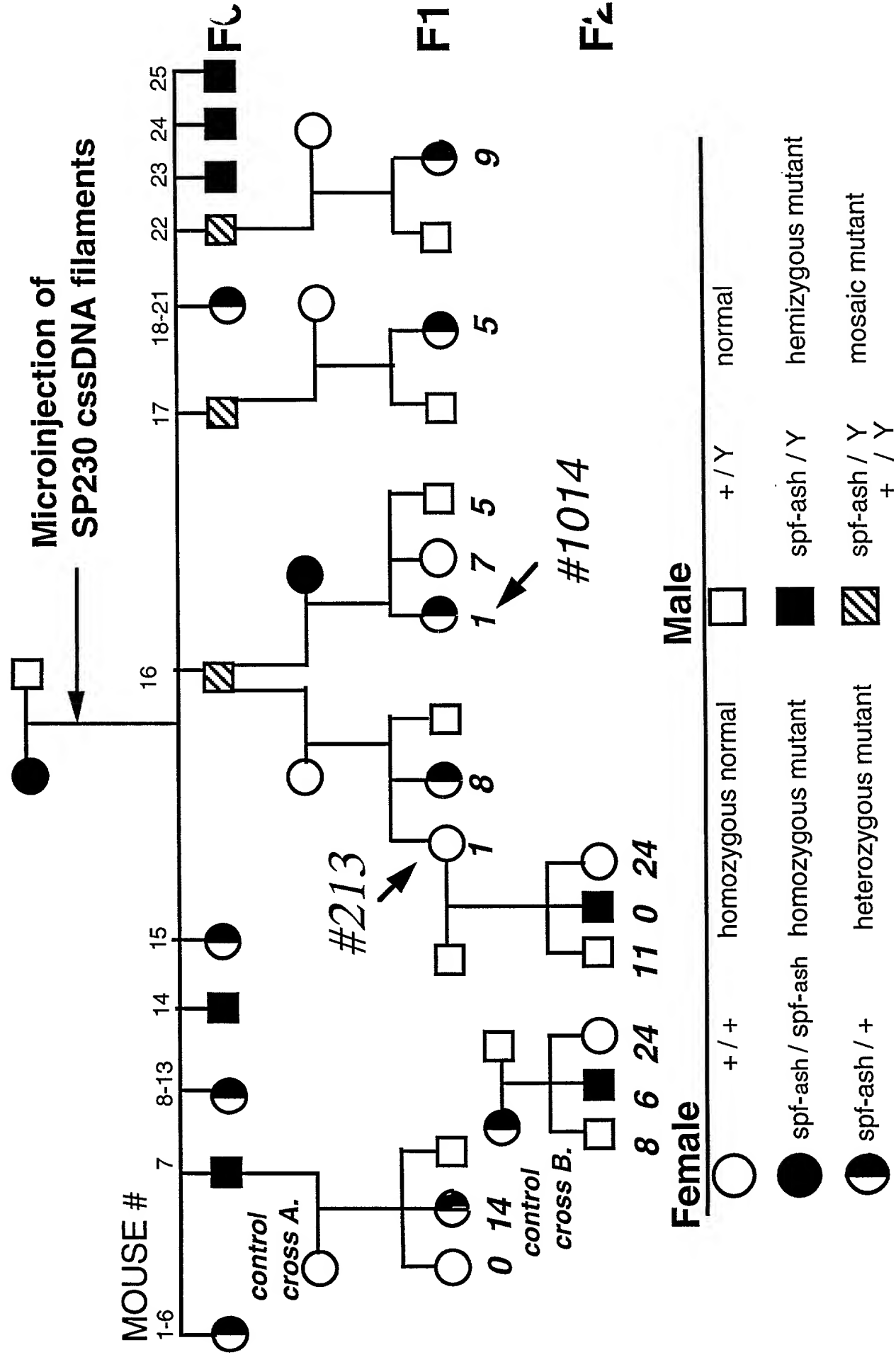


Figure 23

Germline Transmission of Corrected Allele of F0 Male #16

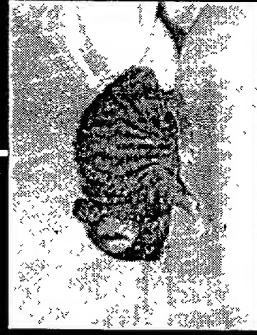


**Homozygous
spf-ash/spf-ash
female parent**

**Mutant F1
Male Pup1**



**Mutant F1
Male Pup2**



**Mutant F1
Female Pup3**



**Mutant F1
Male Pup5**



**Mutant F1
Female Pup7**



**Normal *
F1 Female
Pup1014**

